

**Delaware Department of Transportation  
Council on Transportation  
June 20, 2019**

DeIDOT

# Project Prioritization Weighting Process

DeIDOT

# Agenda

- ▶ Proposed DeIDOT Project Prioritization Criteria
- ▶ New Criteria
  - Social and Health Elements
  - State and Local Priority
    - State Strategies
    - Local Priority

# DeIDOT

Mission	Vision	Goal	Prioritization Criteria	Prioritization Sub-Criteria
Every Trip	We strive to make every trip taken in Delaware safe, reliable and convenient for people and commerce.	<ul style="list-style-type: none"> <li>Minimize the number of fatalities and injuries on our system</li> <li>Build and maintain a nationally recognized system benefiting travelers and commerce</li> </ul>	<ul style="list-style-type: none"> <li>Safety</li> <li>System Operating Effectiveness</li> <li>State and Local Priority</li> </ul>	<ul style="list-style-type: none"> <li>New Safety Scores</li> <li>No. of Strategies addressed in the Strategic Highway Safety Plan</li> <li>Apply TMPC operation data</li> <li>Identified as Congestion Corridors by MPO, Comprehensive Plans, and/or Planning Studies</li> <li>State and Local Priority</li> </ul>
Every Mode	We provide safe choices for travelers in Delaware to access roads, rails, buses, airways, waterways, bike trails, and walking paths.	<ul style="list-style-type: none"> <li>Provide every traveler with access and choices to our transportation system</li> </ul>	<ul style="list-style-type: none"> <li>Multimodal Mobility/Flexibility/ Access</li> </ul>	<ul style="list-style-type: none"> <li>Multimodal Mobility/Flexibility/ Access</li> </ul>
Every Dollar	We seek the best value for every dollar spent for the benefit of all.	<ul style="list-style-type: none"> <li>Minimize the environmental impact of the state's transportation system</li> <li>Achieve financial sustainability through accuracy, transparency and accountability</li> </ul>	<ul style="list-style-type: none"> <li>Environmental Impact/Stewardship</li> <li>Revenue Generation and Economic Development</li> </ul>	<ul style="list-style-type: none"> <li>Environmental Impact/Stewardship</li> <li>Identified in a Transportation Improvement District (TID)</li> <li>Cost-sharing Support</li> <li>Freight Corridor</li> <li>Economic Impact</li> </ul>
Everyone	We provide safe choices for travelers in Delaware to access roads, rails, buses, airways, waterways, bike trails, and walking paths.	<ul style="list-style-type: none"> <li>Develop and maintain a place where talented and motivated employees love to work and can be national leaders in transportation</li> </ul>	<ul style="list-style-type: none"> <li>Impact of the Public/Social Disruption/Environmental Justice</li> </ul>	<ul style="list-style-type: none"> <li>Social and Health Elements</li> </ul>

# CTP Project Prioritization Criteria Comparison

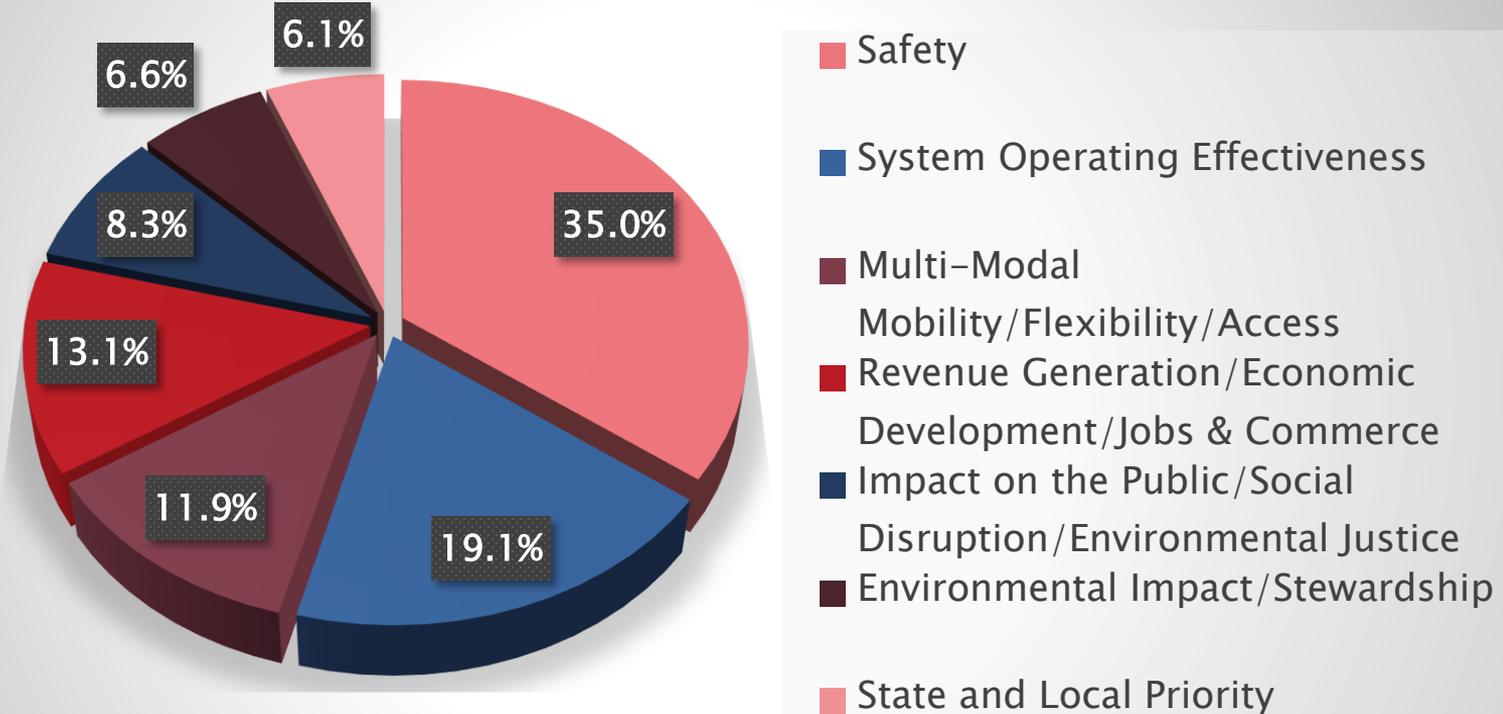
## Existing

- ▶ Safety – 33.0%
- ▶ System Operating Effectiveness – 24.8%
- ▶ Multi-Modal Mobility, Flexibility/Access – 15.6%
- ▶ Revenue Generation/Economic Development/Jobs and Commerce – 7.9%
- ▶ Impact on the Public/Social Disruption/Environmental Justice – 7.2%
- ▶ Environmental Impact/Stewardship – 6.5%
- ▶ System Preservation – 5%

## Proposed

- ▶ Safety – 35.0%
- ▶ System Operating Effectiveness – 19.1%
- ▶ Multi-Modal Mobility, Flexibility/Access – 11.9%
- ▶ Revenue Generation/Economic Development/Jobs and Commerce – 13.1%
- ▶ **Impact on the Public/Social Disruption/Environmental Justice – 8.3%**
- ▶ Environmental Impact/Stewardship – 6.6%
- ▶ **State and Local Priority – 6.06%**

# Proposed DeIDOT CTP Prioritization Criteria



# Proposed Prioritization Criteria

## ▶ **Current Quantitative Criteria (77.2%):**

- Safety (35.0% from 33.0%)
- System Operating Effectiveness (19.1% from 24.8% )
- Revenue Generation/Economic Development/Jobs & Commerce (13.1% from 7.9%)
- Social and Health Elements (3.9%)
- State and Local Priority (6.1% from 5% of System Preservation)

## ▶ **Current Qualitative Criteria (22.8%):**

- Multi-Modal Mobility/Flexibility/Access (11.9%)
- Impact on the Public/Social Disruption/Economic Justice (4.3% from 7.2%)
- Environmental Impact/Stewardship (6.6% from 6.5%)

# Potential CTP Project Prioritization Criteria

- ▶ Impact on the Public/Social Disruption/Economic Justice (8.28%)
    - Assess the extent to which the project supports investment in existing communities and provides community enhancements such as sidewalks, safe routes to school, etc.
      - Keep for connectivity purpose
    - **Social and Health Elements**
      - EPA EJ Screens Demographic Indicators (<https://ejscreen.epa.gov/mapper/>)
        - Percent low income pop\*
        - Percent of minority pop\*
- \*= Per USDOT Environmental Justice Strategy (November 15, 2016)

# Impact on the Public/Social Disruption/Environmental Justice Criteria Comparison

## Existing

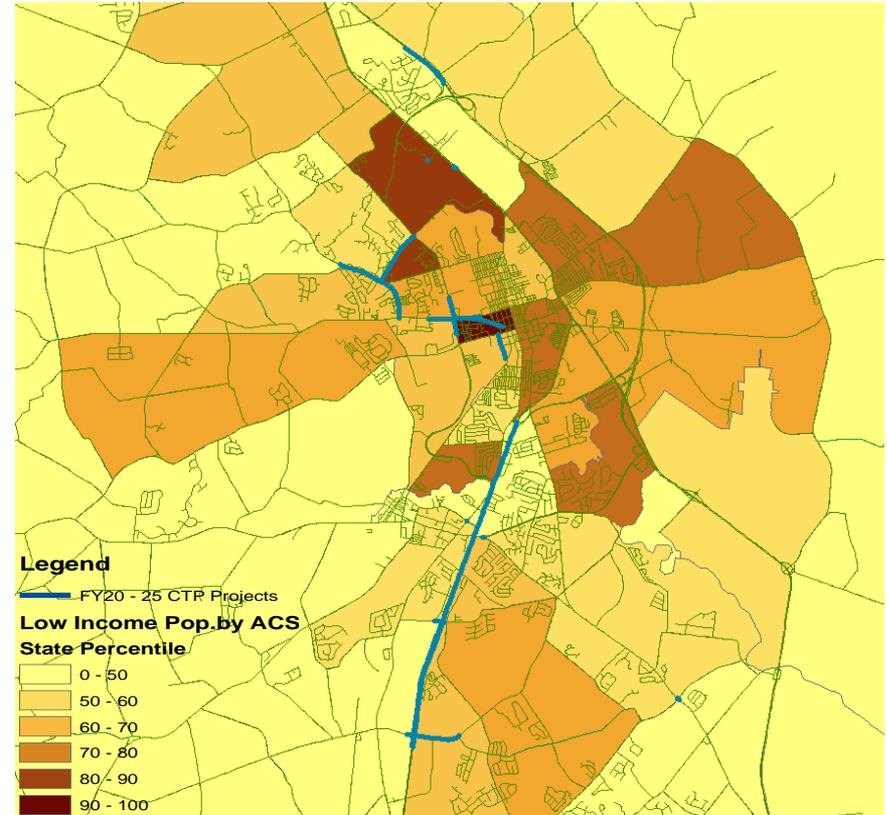
- ▶ Impact on the Public/Social Disruption/Environmental Justice (7.2%)
  - Assess the extent to which the project supports investment in existing communities and provides community enhancements such as sidewalks, safe routes to school, etc. – 7.2%

## Proposed

- ▶ Impact on the Public/Social Disruption/Environmental Justice (8.28%)
  - Assess the extent to which the project supports investment in existing communities and provides community enhancements such as sidewalks, safe routes to school, etc. – 4.33%
  - Social and Health Elements – 3.95%

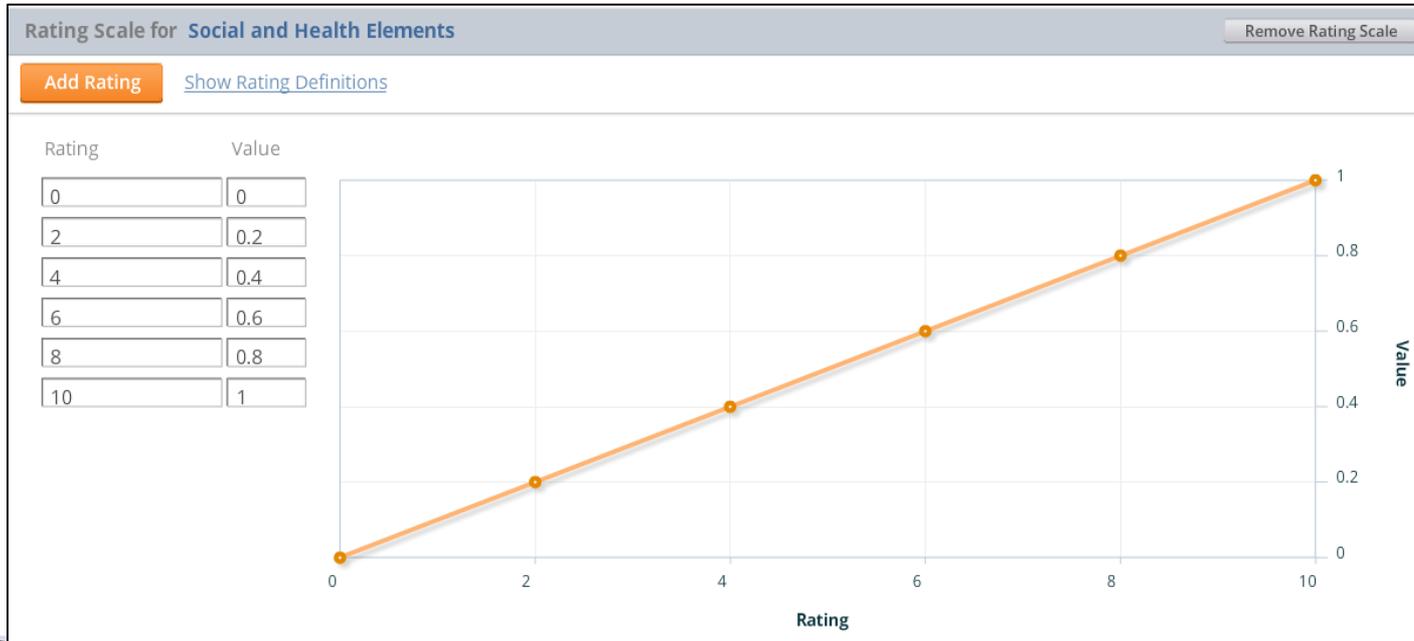
# Social and Health Elements

- **Scale for 50 – 100 percentile**  
**(Above State Average)**
  - 5 pt. for 90 – 100 percentile
  - 4 pt. for 80 – 90 percentile
  - 3 pt. for 70 – 80 percentile
  - 2 pt. for 60 – 70 percentile
  - 1 pt. for 50 – 60 percentile
- **Max. pt. = 10**
  - 5 for Low Income Population
  - 5 for Minority
- **Min. pt. = 0**



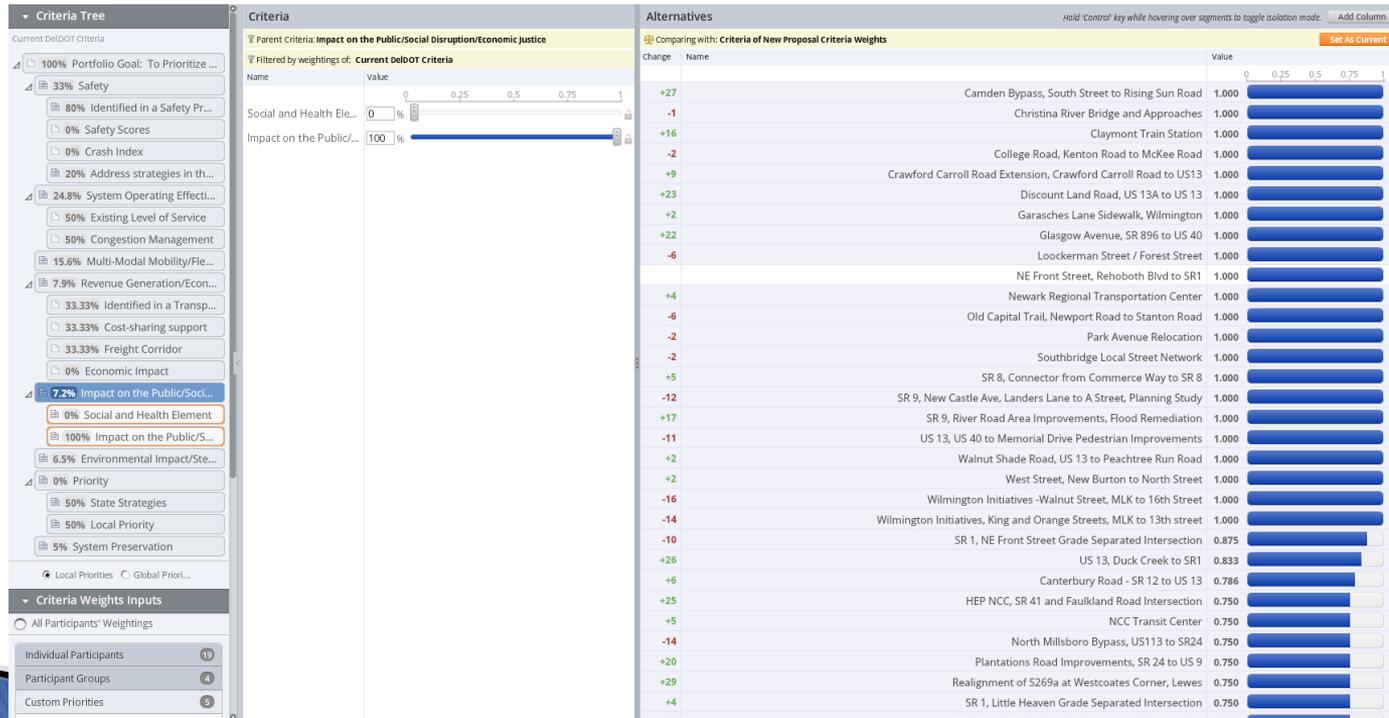
# Social and Health Elements

- Rating Scale



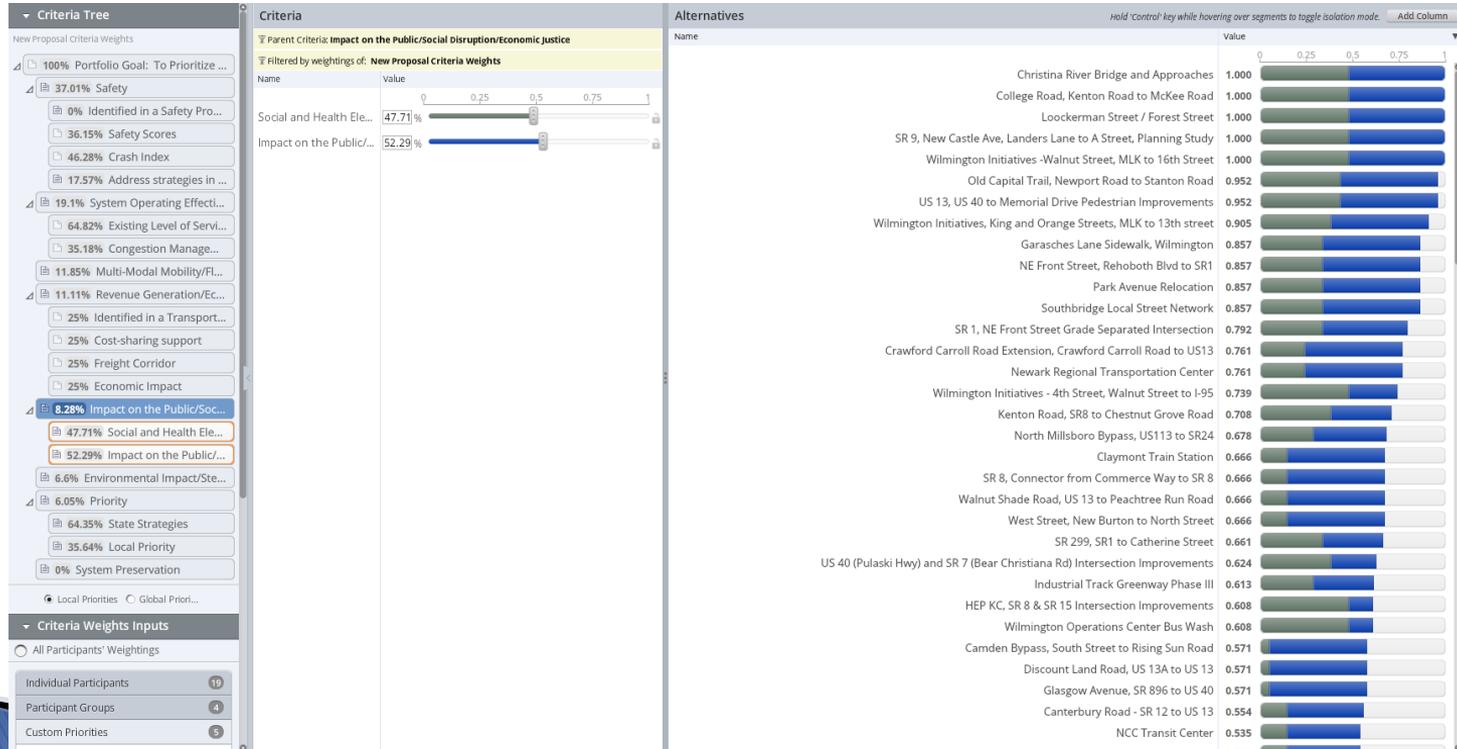
# No Social and Health Elements

- Criteria Sensitivity screen shot from Decision Lens



# Social and Health Elements

- Criteria Sensitivity screen shot from Decision Lens



# Potential CTP Project Prioritization Criteria

(continued)

## ▶ ~~System Preservation (Delete)~~

- Assess the extent to which a project contributes towards system preservation and is identified through an existing preservation program
- DeIDOT currently has a system preservation program for bridge, roadway pavement, signage, etc.
  - Only 12 of 107 projects have scored on this criteria.

# CTP Project Prioritization Criteria Comparison

- ▶ **System Preservation (5.0%)**
- ▶ **State and Local Priority (6.06%)**
  - State Strategies – 3.92%
  - Local Priority – 2.14%

# Potential CTP Project Prioritization Criteria

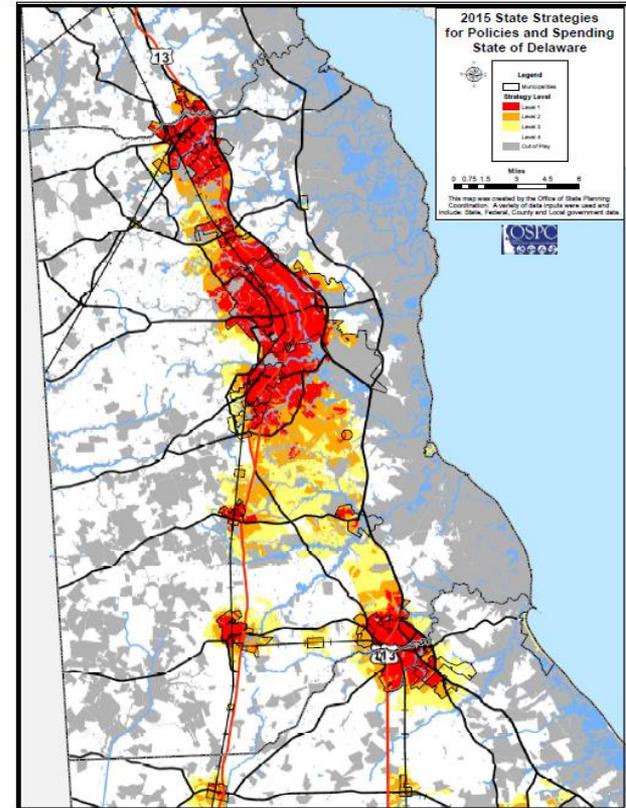
(continued)

- ▶ **State and Local Priority (6.06%)**
  - **Delaware Strategies for State Policies and Spending**
    - Prepared by Delaware Office of State Planning Coordination
      - Project Type matches the State Investment Level
      - Scheduled to be updated in 2020.

# Potential CTP Project Prioritization Criteria

(continued) Kent County

- **Four Types of Investment Levels for Transportation**
  - **Level 1:** Investment Level 1 Areas are often municipalities, towns, or urbanizing area
  - **Level 2:** Less developed areas within municipalities; near Level 1 areas and rapidly growing areas in the counties
  - **Level 3:** Lands that are adjacent to or intermingled with fast-growing areas within counties or municipalities
  - **Level 4:** Rural in nature, open space/natural areas and agricultural industry



# Potential CTP Project Prioritization Criteria

(continued)

- Typical Level 1 and 2 area Transportation Investment:
  - Preserving existing facilities
  - Safety improvements
  - Context-sensitive transportation
  - System Capacity Enhancements
  - Transit system enhancements
  - ADA accessibility; closing gaps in the pedestrian system, including the Safe Routes to School projects.
  - Bicycle facilities
  - Signal-system enhancements
  - Interconnectivity of neighborhoods, and public facilities

# Potential CTP Project Prioritization Criteria

(continued)

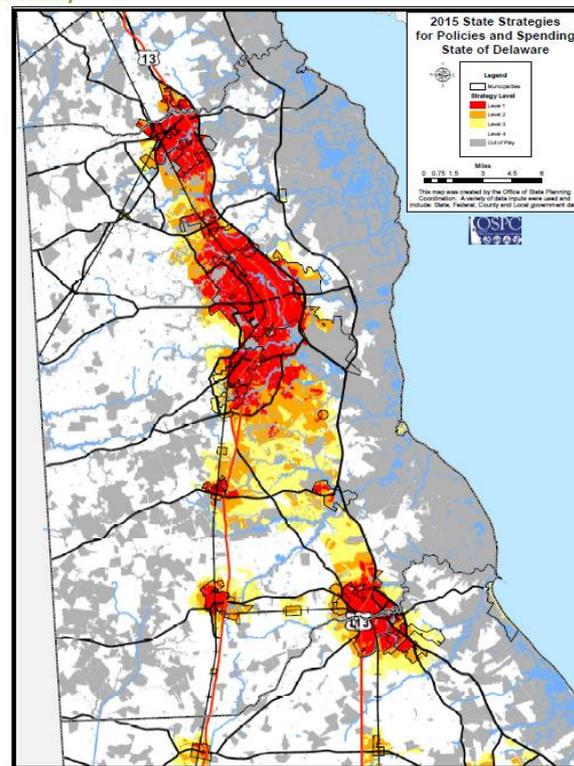
- Typical Level 3 Transportation Investment:
  - Focus on regional movements between towns and other population centers.
  - Developers and property owners will make local roadway improvements
  - Lower priority to transportation system–capacity improvements and transit–system enhancements.
- Typical Level 4 Transportation Investment:
  - Preserve and maintain existing facilities in safe working order
  - Corridor–capacity preservation
  - Enhancement of transportation facilities to support agricultural business.

# Potential CTP Project Prioritization Criteria

(continued)

- Project Match Investment Level
  - Full score if Project meet more than halve of the 2015 Delaware State Strategies needs based on Level 1, 2, 3, or 4
  - 50 percent score if Project partially meet (less than halve) of the 2015 Delaware State Strategies needs based on Level 1, 2, 3, or 4

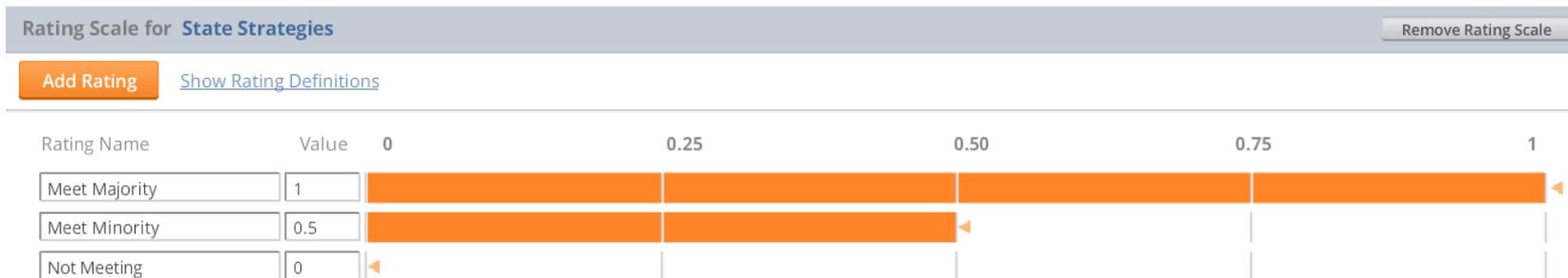
Kent County



Adopted by Executive Order 59, April 14, 2016 | 17

# Potential CTP Project Prioritization Criteria (continued)

- Rating Scale



# Potential CTP Project Prioritization Criteria

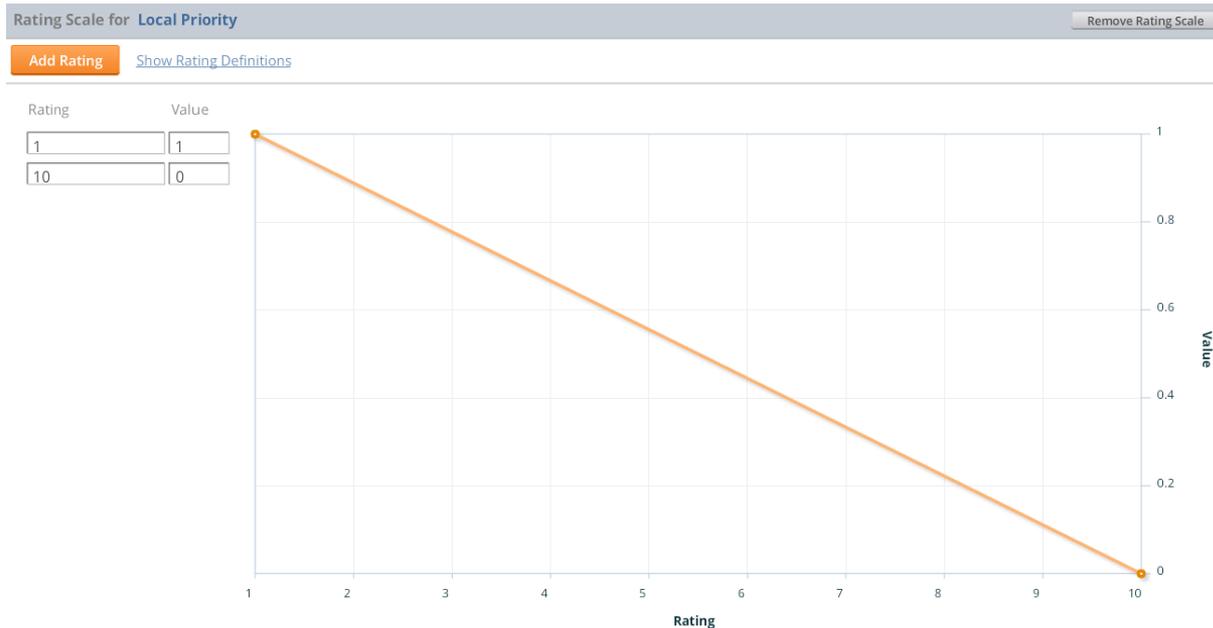
(continued)

## ▶ State and Local Priority (New)

- **Local Priority:** Top ten projects identified by Delaware MPOs and Sussex County that are supported by the local and/or state planning efforts could be given a higher weight in Decision Lens
  - Top ten (10) Local Priority Projects from each MPOs or Sussex County will be scored.
    - Each program year may have 3 projects ranked No. 1.
      - By the MPOs/Sussex

# Potential CTP Project Prioritization Criteria (continued)

- Rating Scale



# State and Local Priority

- Criteria Sensitivity screen shot from Decision Lens

COT FY20-25 DELDOT CTP\_06\_20\_19 LEARN SUPPORT

< HOME ⚙️ Sensitivity Analysis 🔍 📄 🏠

PORTFOLIO OVERVIEW

SITE MAP

Define

CRITERIA

RATING SCALES

ALTERNATIVES

PARTICIPANTS

Collect

PRIORITIES

RATINGS

Visualize

SENSITIVITY ANALYSIS

TRADE OFF ANALYSIS

BUBBLE CHART

METRICS

Optimize

ALLOCATE

13.11% Revenue Generation/Ec...

24.25% Identified in a Transp...

12.51% Cost-sharing support

19.76% Freight Corridor

43.48% Economic Impact

8.28% Impact on the Public/Soc...

52.29% Impact on the Public/...

47.71% Social and Health Ele...

6.6% Environmental Impact/Ste...

0% System Preservation

6.06% Priority

64.69% State Strategies

35.31% Local Priority

Local Priorit...  Global Prior...

Criteria Weights Inputs

All Participants' Weightings

Individual Participants 19

Participant Groups 4

Custom Priorities 4

Criteria

Parent Criteria: Priority

Filtered by weightings of: Proposed New Criteria Weights

Name	Value
State Strategies	64.69 %
Local Priority	35.31 %

Alternatives Hold 'Control' key while hovering over segments to toggle isolation mode. Add Column

Comparing with: Criteria of DE COT Criteria Set As Current

Change	Name	Value
+2	Canterbury Road - SR 12 to US 13	1.000
+29	HSIP SC, 24 at Mount Joy Road and SR 2...	1.000
+40	N15, Boyds Corner Road, Cedar Lane Ro...	1.000
+52	Plantations Road Improvements, SR 24 t...	1.000
+64	SR 1, South Frederica Grade Separated I...	1.000
+64	SR 141, Jay Drive to I-95 Interchange	1.000
+67	SR 24, Mulberry Knoll to SR 1	1.000
+69	SR 4, Christina Parkway from SR 2, Elkto...	1.000
+74	SR 896 Widening, US 40 to I-95	1.000
+74	SR 9, New Castle Ave, Landers Lane to A...	1.000
+82	US 13, US 40 to Memorial Drive Pedestri...	1.000
+87	US 9 and Minos Conaway Intersection I...	1.000
+87	US 9, Kings Highway, Dartmouth Dr to F...	1.000
-8	Christina River Bridge and Approaches	0.961
+10	HSIP NCC, I-95, N213 Carr Road & N3, M...	0.961
+28	N412, Lorewood Grove Road, Rd 412A t...	0.961
+55	SR 2 and Red Mill Road Intersection Imp...	0.961
+55	SR 24, Love Creek to Mulberry Knoll	0.961

# Question?